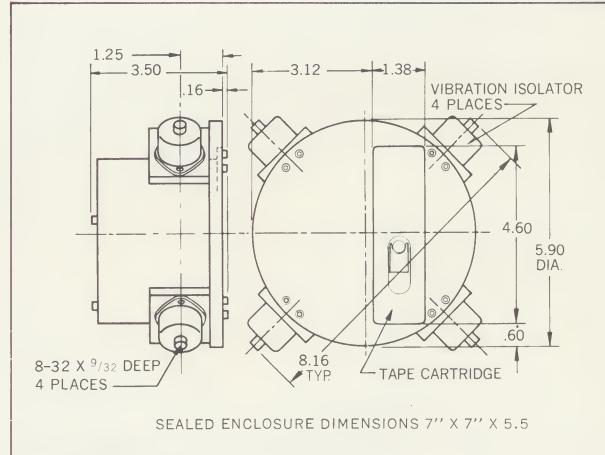


Model R34 Digital Magnetic Tape Recorder

The DACOL Model R34 Scientific Data Recorder is designed to be integrated into an instrumentation system to automatically record data during unattended operation. The R34 records data in an incremental word mode on $1/2"$, 7-track, cartridge loaded magnetic tape. This digital recorder has been subjected to rigid government testing and gives dependable performance in airborne applications.

SPECIFICATIONS

FORMAT	Seven-bit (parallel) characters; 6-bits for data, 1 for synchronism or parity. Variable character word lengths under external control.
CAPACITY	Up to 250,000 characters per cartridge.
RECORDING RATE	Up to 130 characters per second.
RECORDING MODE	Return-to-Bias (RB).
INPUT LOGIC LEVELS	0 to 0.5 volts = logical "0" +4 to +6 volts = logical "1"
RECORD COMMAND	+6 volts $\pm 10\%$.
INPUT IMPEDANCES	4000 ohms minimum.
INTERFACE CONNECTING LINES	7 data, 1 ground, 1 record command, 2 power and 1 clock (recorder generated).
POWER REQUIRED	Zero standby power. +6 volts $\pm 10\%$ and -6 volts $\pm 10\%$ each at 200 ma during recording.
WEIGHT	Seven Pounds (including enclosure).
ENVIRONMENTAL CAPABILITIES	(When housed in DACOL sealed enclosure.)
VIBRATION	Conforms with MIL-E-5272, Procedure 12, Curve A (± 10 G's, 70 to 500 cps).
HUMIDITY	To 100% Relative (FAA TSO-C84).
TEMPERATURE	0° to 140°F (operating) Lower temperature on special order. Storage -40° to +160°F.
ALTITUDE	100,000 feet.
SALT SPRAY	Conforms with MIL-E-5272, Procedure 1 (50 hours).
INPUT POWER	Will operate from aircraft power sources.
FUNGUS	Constructed of non-nutritive materials.
RFI	Conforms with FAA TSO-C84.
RELIABILITY	MTBF—2000 hours in typical aircraft application. Bit loss—less than 1 in 10^6 through total write/read process.
TAPE PROCESSING	DACOL Model TC19 Tape-to-Tape Converter, which generates a computer compatible tape, or DACOL Model TR43 Tape Reader, for on-line computer input. TR26 Tape Reader available for user designed processor.



Hersey-Sparling Meter Company

DACOL DIVISION

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DACOL TECHNICAL REPRESENTATIVES THROUGHOUT THE FREE WORLD

Model R41 Portable Keyboard Digital Magnetic Tape Recorder

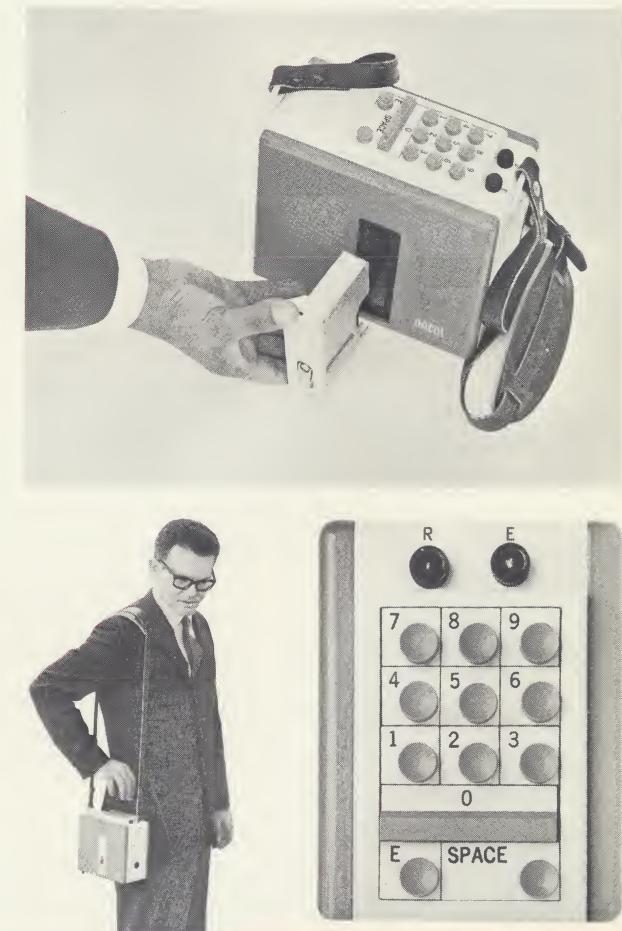
SPECIFICATIONS

FORMAT	Five-bit (parallel) characters; 4-bits for data, 1 for parity. Variable character word lengths controlled by "Space" key which records a special character between words.
CAPACITY	50,000 characters per cartridge at 50 characters-per-inch density.
RECORDING RATE	Up to 12 characters per second.
KEYBOARD	Ten keys numbered "0" through "9", Error key lettered "E", and Space key lettered "Space".
RECORDING MODE	Return-to-Bias (RB)
POWER SUPPLY	Self-contained, rechargeable NiCad battery pack. (Three cartridges can be recorded at room temperature before charging is required. Can be recharged overnight). No power is used during standby.
INDICATOR LIGHTS	"Record" and "Error". Error light is activated when two or more keys are depressed simultaneously. "Error" key must be depressed to deactivate Error light.
TEMPERATURE	0° to 130°F
HUMIDITY	To 100% Relative
SIZE	8" x 7" x 4"
WEIGHT	Six pounds
CONSTRUCTION	Solid state electronics. Modular, to permit rapid and low cost maintenance.
TAPE PROCESSING	DACOL Model TC19A Tape-to-Tape Converter generates a computer compatible tape, or DACOL Model TR43A Tape Reader for on-line computer input. TR26A Tape Reader available for user designed processor.
ACCESSORIES	Dacol Model BC36 Battery Charger.
OPTIONS	<ol style="list-style-type: none"> Up to four additional keys such as "X", "Y", ".", "+" or "-". Full alphanumeric capability using 12 keys. Recorder lock-out when two or more keys are depressed simultaneously. End-of-tape indicator light. 1 to 5 digit display of entered data.

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Syosset, L. I. New York 11791

The DACOL Model R41 Recorder, records data in an incremental character mode on 1/2-inch, 5-track, cartridge loaded magnetic tape. Data are entered manually by means of a built-in 12 key numeric keyboard. Circuitry detects when two or more keys are depressed simultaneously and activates the "Error" light. "Error" key turns off the light and records a special error character on the tape.

The Model R41 is a portable, magnetic-tape equivalent of a key punch machine. It provides a rapid and convenient method to record field data in a form compatible with modern data processing. Flexible formatting capability permits the operator to record variable character length word groups.



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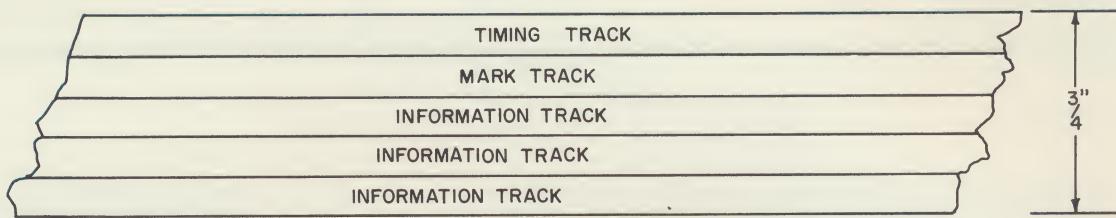


Figure 1 Track Allocation

Key to the system is Micro Tape's serially coded mark track whose function is to subdivide the tape into blocks made up of data and control words. Units of information as small as one word or less can be replaced on the tape without disturbing adjacent information. Drum-like, exact tape addressing is the result.

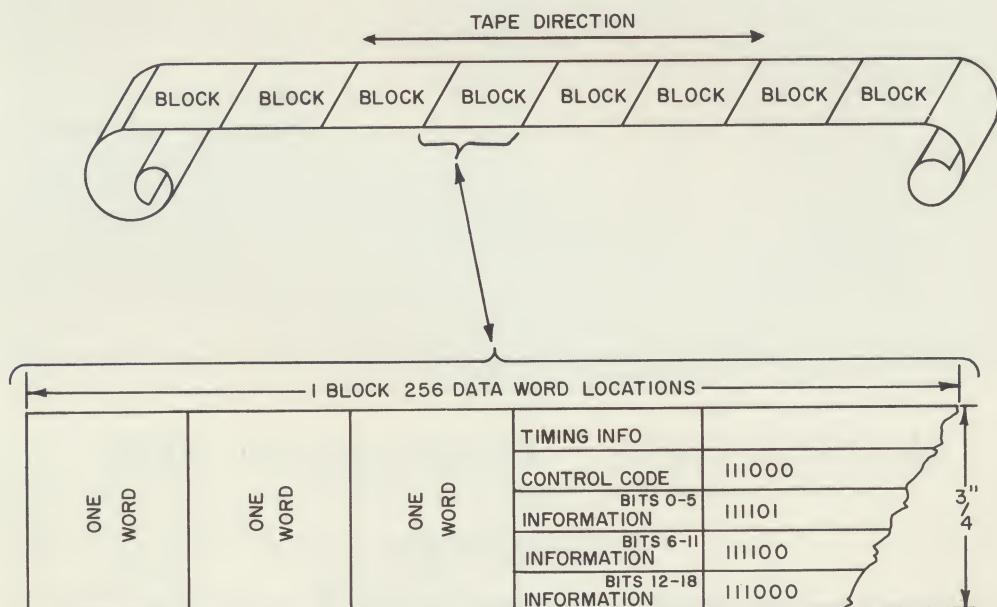
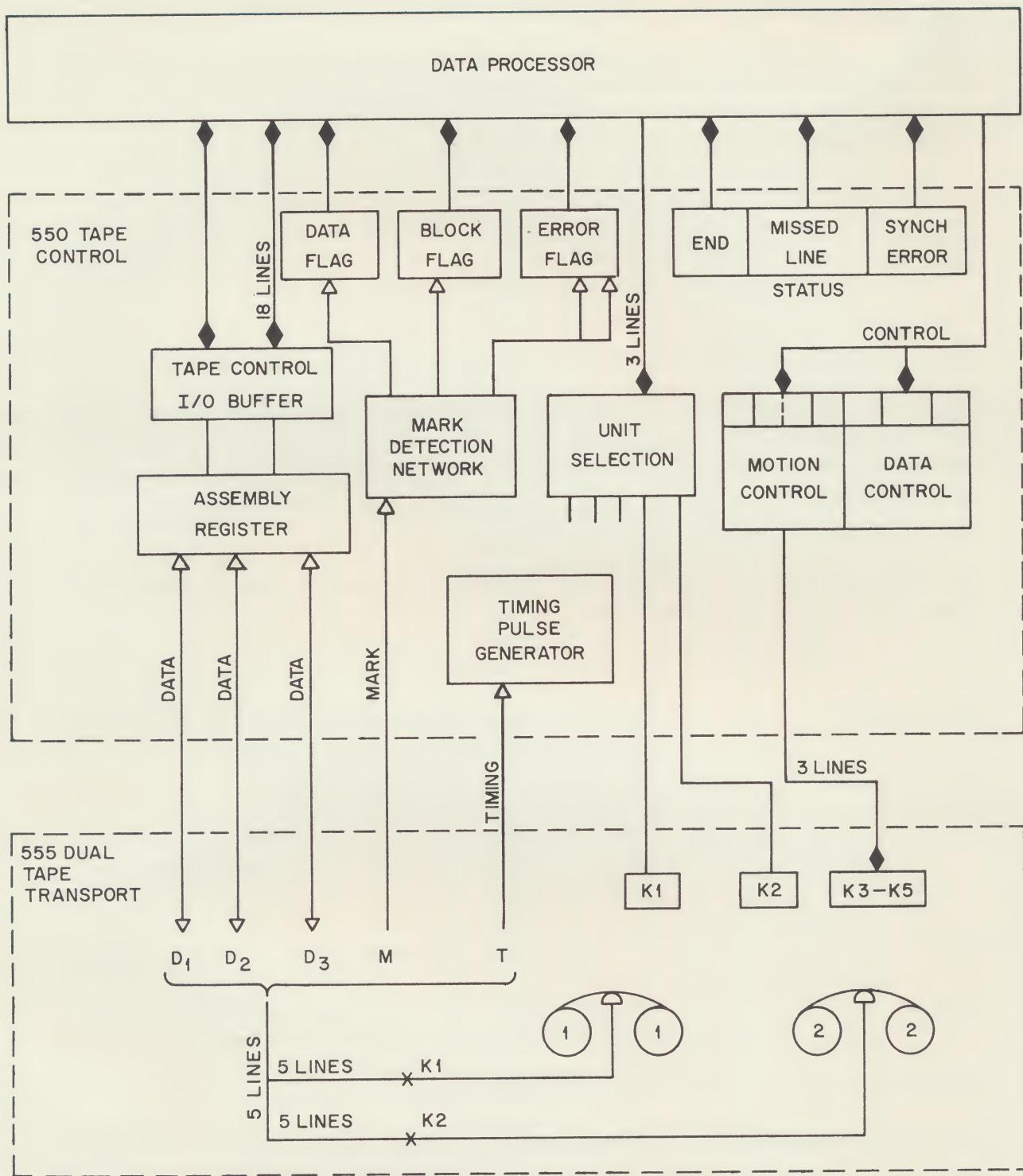


Figure 2 Block Format

The Type 555 utilizes a ten track recording head to read and write five duplexed channels. Three distinct track pairs are available for data. The two remaining pairs are used for Timing and Mark information. Use of redundant recording minimizes drop-outs due to variations in amplitude. Assuming the presence of a computer or pattern generator, mark tracks may be written in the field with both standard and non-standard formats.



MICRO TAPE SYSTEM DIAGRAM